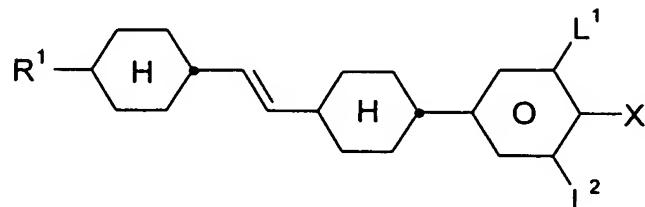


**Patent Claims**

1. Liquid-crystalline medium based on a mixture of polar compounds, characterised in that it comprises one or more compounds of the formula I

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in which

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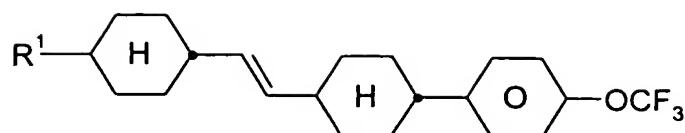
35

$R^1$  is a halogenated or unsubstituted alkyl or alkoxy radical having from 1 to 15 carbon atoms, where, in addition, one or more  $CH_2$  groups in these radicals may each, independently of one another, be replaced by  $-C\equiv C-$ ,  $-CH=CH-$ ,  $-O-$ ,  $-CO-O-$  or  $-O-CO-$  in such a way that O atoms are not linked directly to one another,

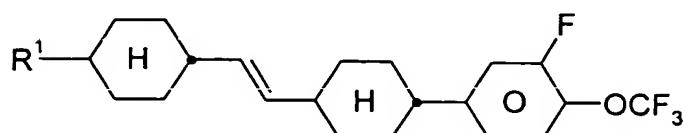
$X$  is F, Cl, CN, a halogenated alkyl radical, a halogenated alkenyl radical, a halogenated alkoxy radical or a halogenated alkenyloxy radical having up to 6 carbon atoms, and

$L^1$  and  $L^2$  are each, independently of one another, H or F.

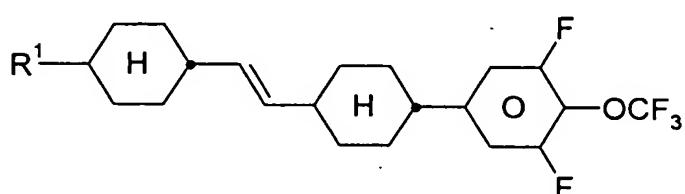
2. Liquid-crystalline medium according to Claim 1, characterised in that  $R^1$  = alkenyl in the compound of the formula I.
3. Liquid-crystalline medium according to Claim 1 or 2, characterised in that it comprises one, two or more compounds of the formulae I-1 to I-15



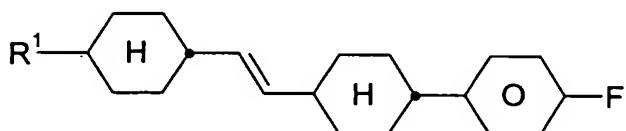
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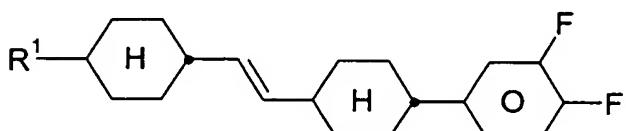
i-2



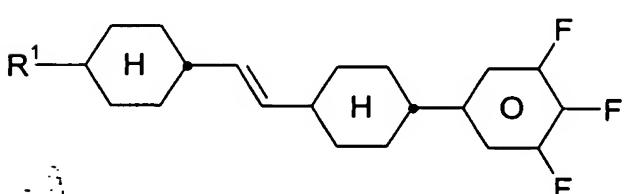
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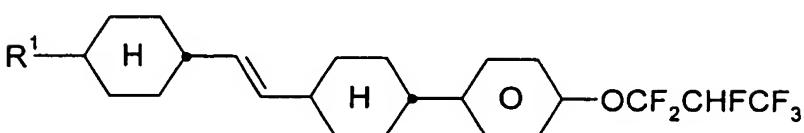
| -4



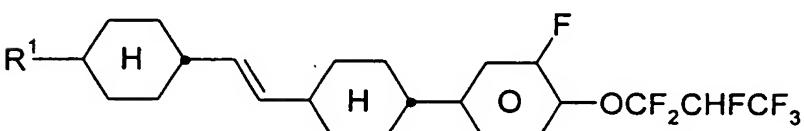
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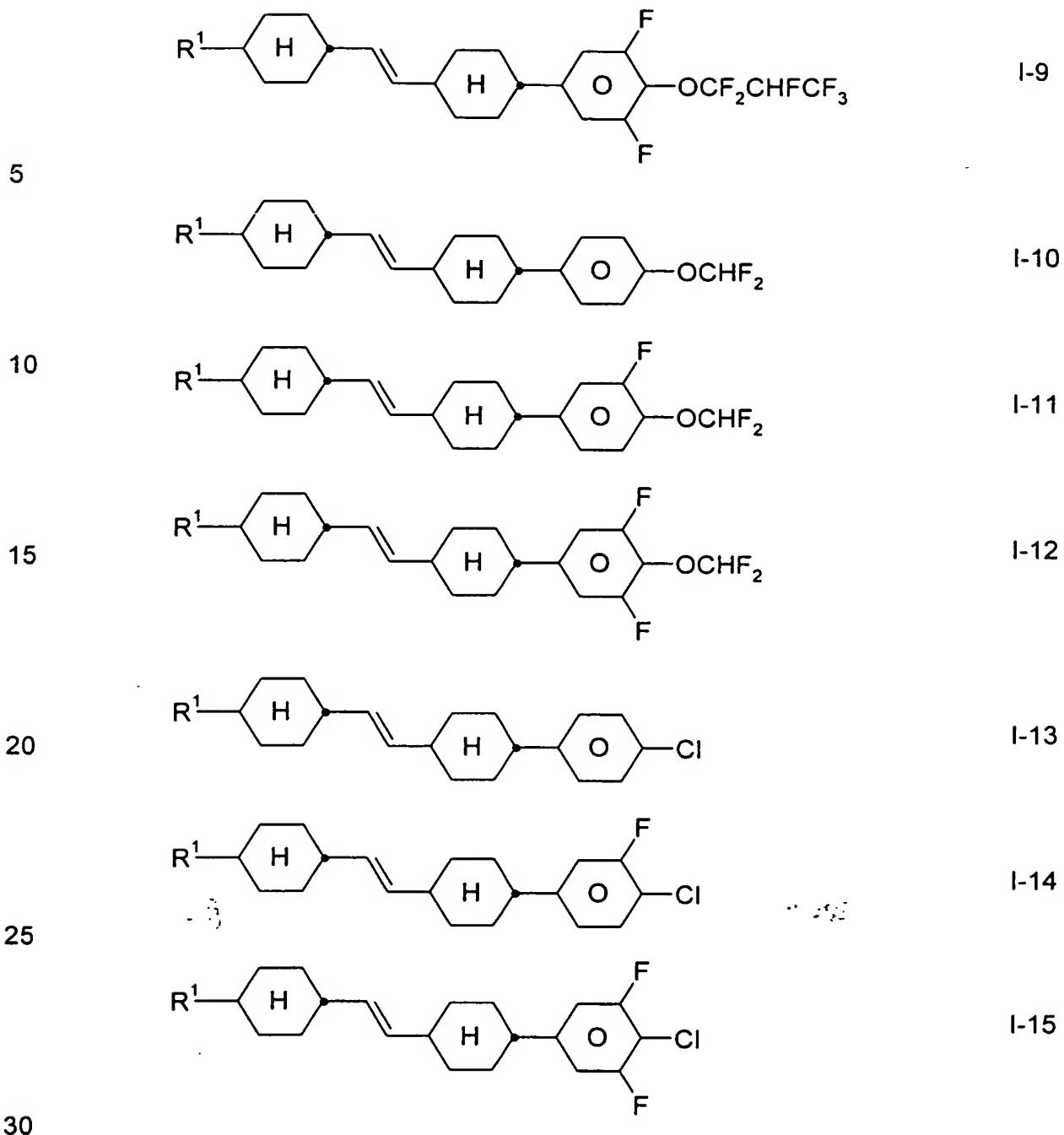
|-6



1-7



1-8

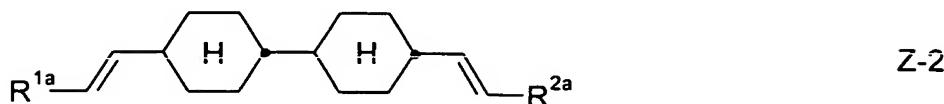


in which  $R^1$  is as defined in Claim 1.

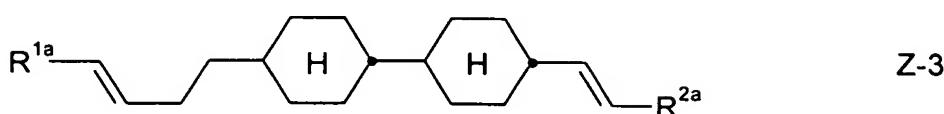
- 35 4. Liquid-crystalline medium according to one of Claims 1 to 3,  
characterised in that it comprises one, two or more bicyclic  
compounds of the formulae Z-1 to Z-8



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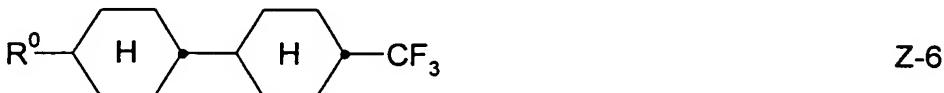
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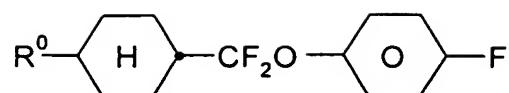
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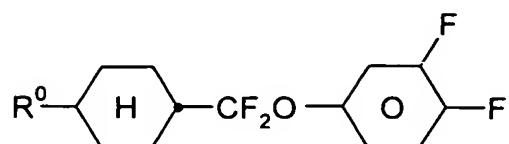
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in which R<sup>1a</sup> and R<sup>2a</sup> are each, independently of one another, H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub> or n-C<sub>3</sub>H<sub>7</sub>, and alkyl and alkyl\* are each, independently of one another, a straight-chain or branched alkyl group having 1-7 carbon atoms.

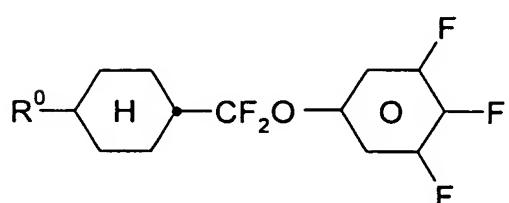
5. Liquid-crystalline medium according to one of Claims 1 to 4, characterised in that it comprises one or more compounds of the formulae Q-1 to Q-15



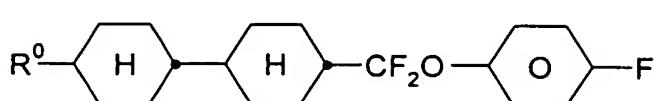
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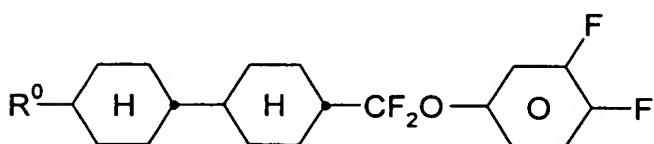
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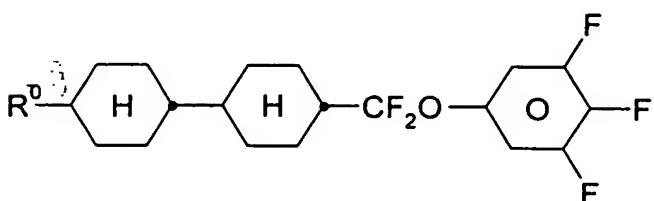
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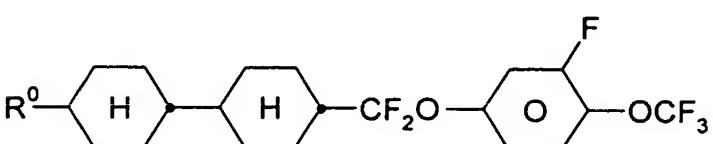
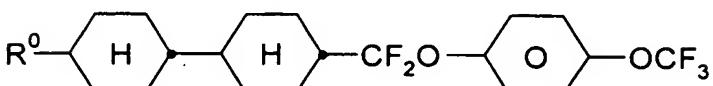
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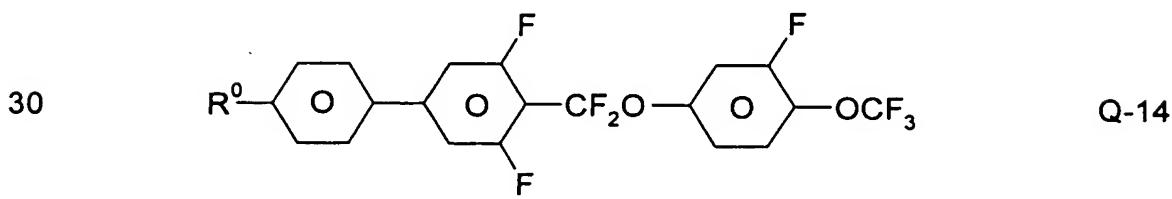
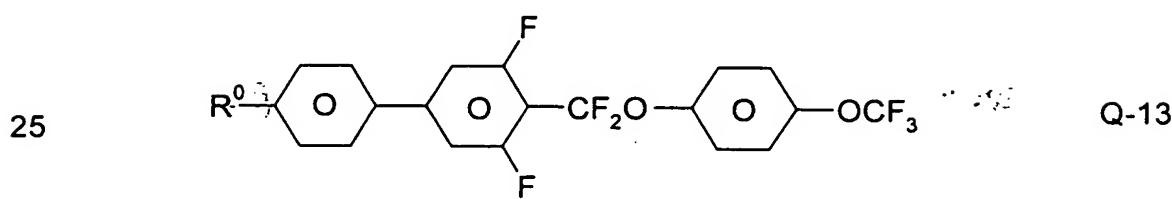
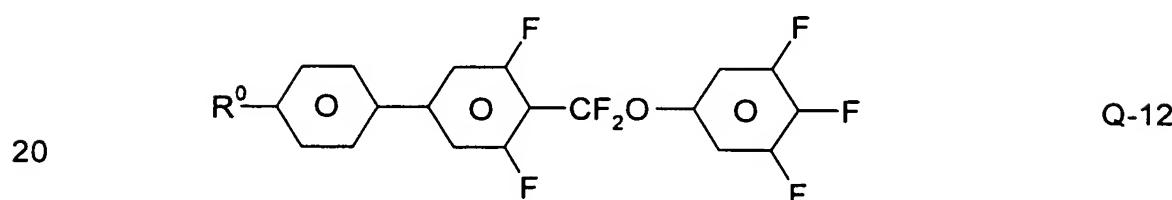
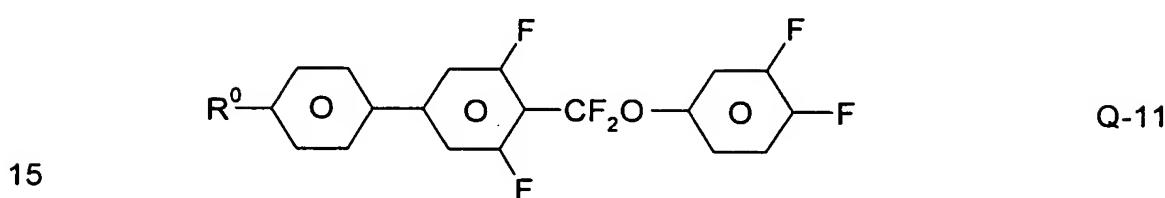
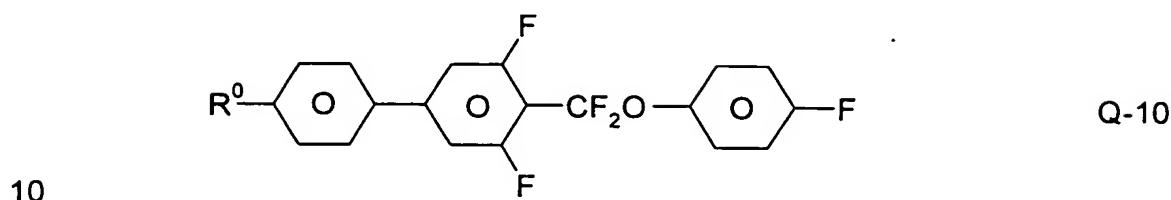
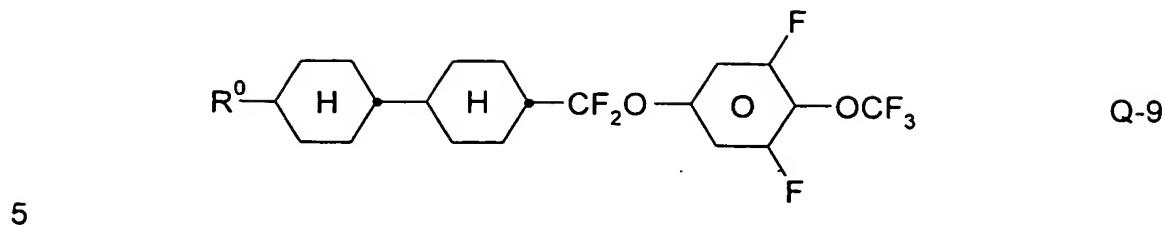
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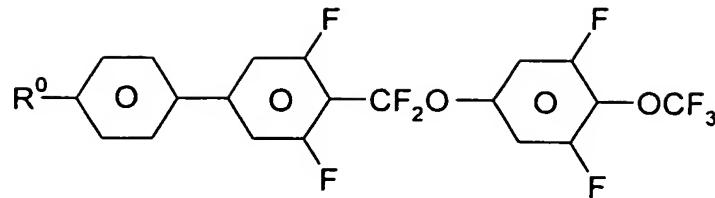


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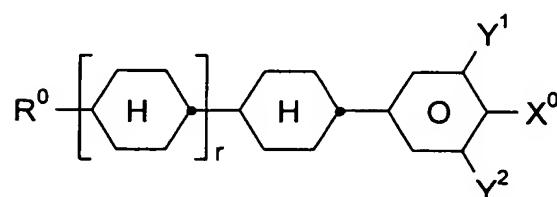


Q-15

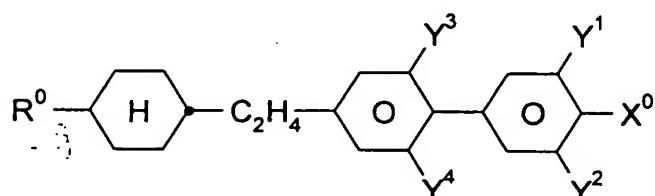
in which

10             $R^0$  is n-alkyl, oxaalkyl, alkoxy, alkenyloxy, fluoroalkyl or  
alkenyl, each having up to 9 carbon atoms.

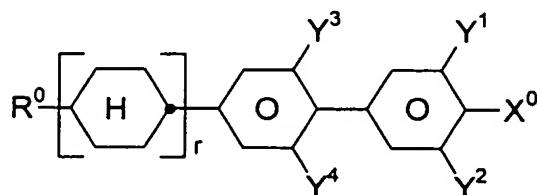
- 15            6. Liquid-crystalline medium according to one of Claims 1 to 5,  
characterised in that it additionally comprises one or more  
compounds selected from the group consisting of the general  
formulae II, III, IV, V and VI:



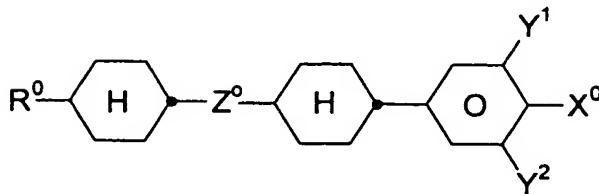
II



III

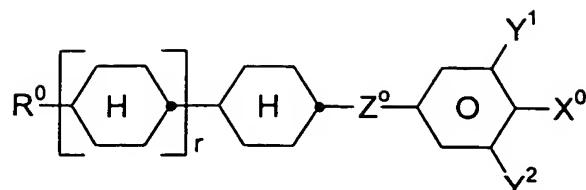


IV



V

5



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in which the individual radicals have the following meanings:

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$R^0$  is n-alkyl, oxaalkyl, alkoxy, alkenyloxy, fluoroalkyl or alkenyl, each having up to 9 carbon atoms,

$X^0$  is F, Cl, halogenated alkyl, halogenated alkenyl, halogenated alkenyloxy or halogenated alkoxy having up to 6 carbon atoms,

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$Z^0$  is  $-C_2F_4-$ ,  $-CF=CF-$ ,  $-C_2H_4-$ ,  $-(CH_2)_4-$ ,  $-OCH_2-$ ,  $-CH_2O-$ ,  $-CF_2O-$  or  $-OCF_2-$ ,

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$Y^1$  to  $Y^4$  are each, independently of one another, H or F,

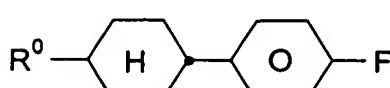
$r$  is 0 or 1.

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7. Liquid-crystalline medium according to Claim 6, characterised in that the proportion of compounds of the formulae I to VI together in the mixture as a whole is at least 50% by weight.

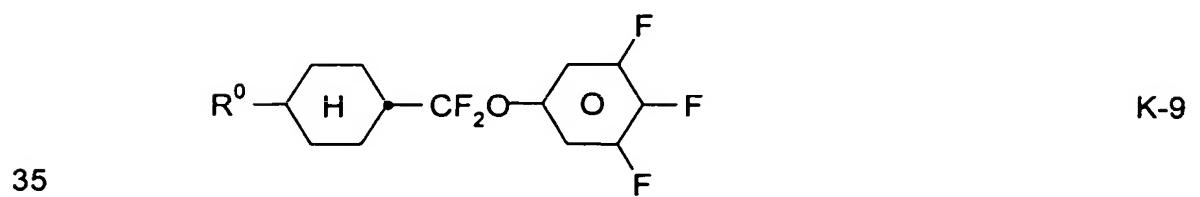
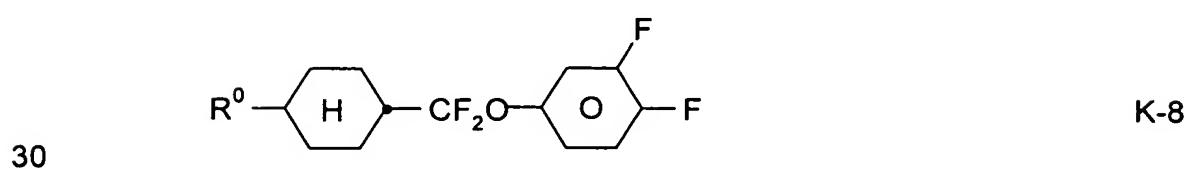
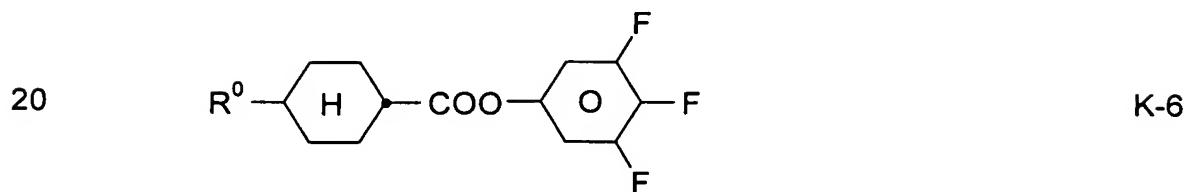
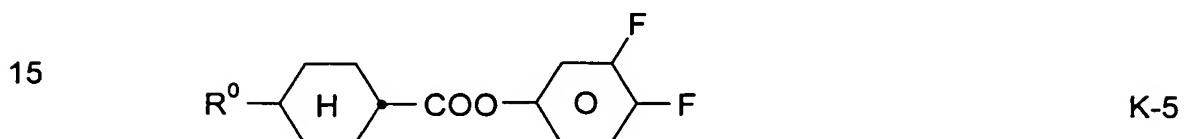
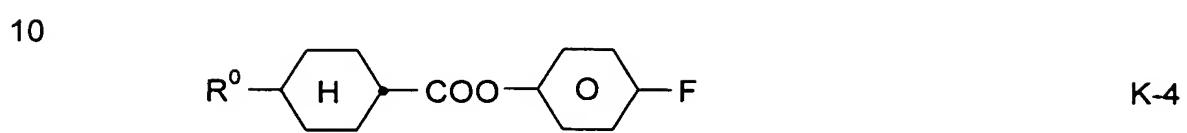
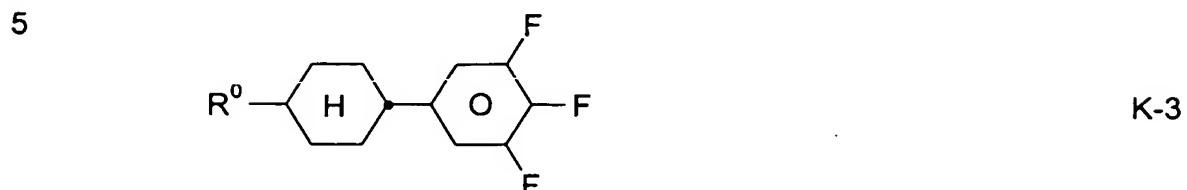
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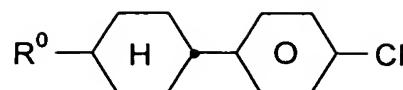
8. Liquid-crystalline medium according to at least one of Claims 1 to 7, characterised in that it additionally comprises one or more compounds of the formulae K-1 to K-27



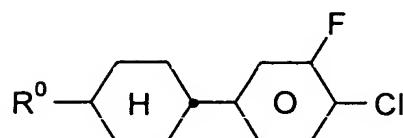
K-1

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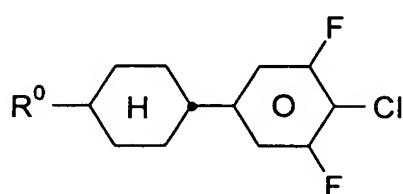




K-10



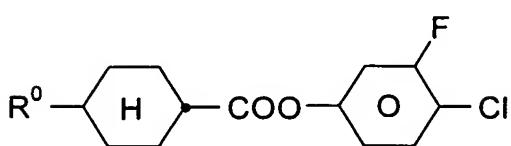
K-11



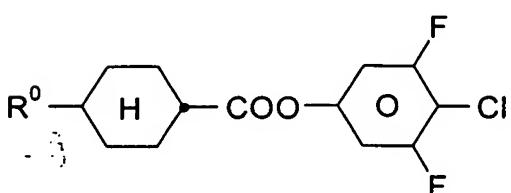
K-12



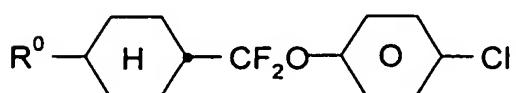
K-13



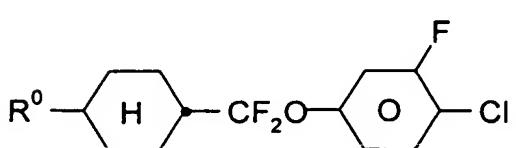
K-14



K-15

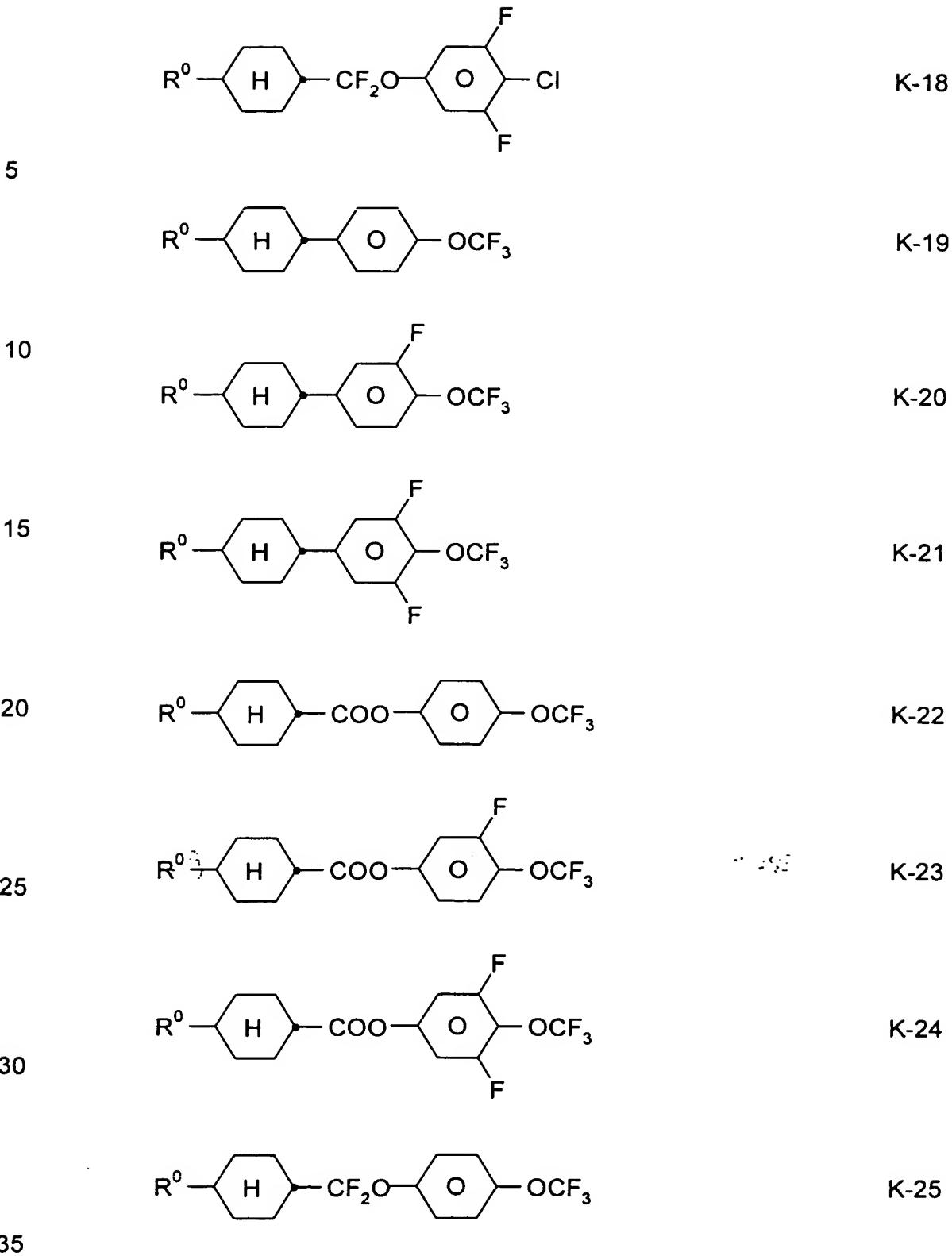


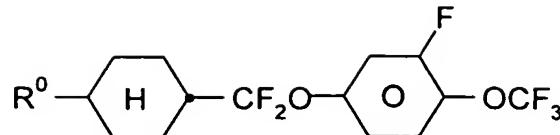
K-16



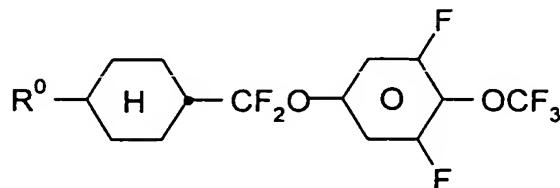
K-17

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K-26



K-27

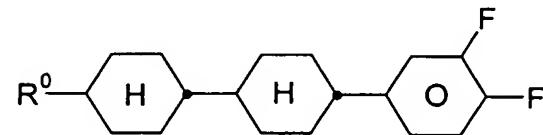
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in which  $R^0$  is as defined in Claim 6.

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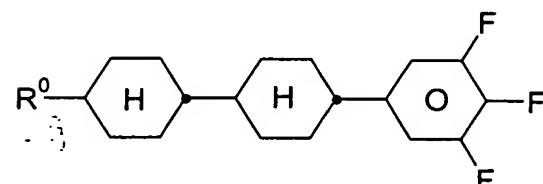
9. Liquid-crystalline medium according to at least one of Claims 1 to 8, characterised in that it comprises one or more compounds of the formulae IIa to IIg

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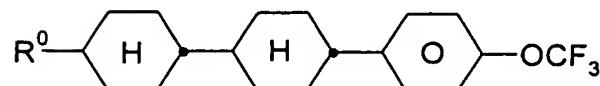
IIa

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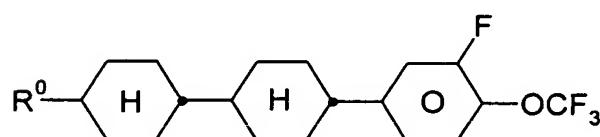
IIb

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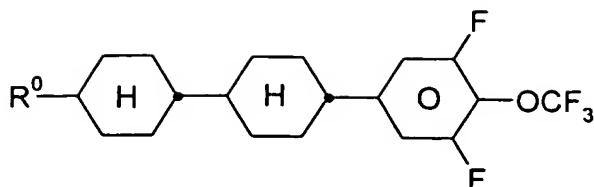
IIc

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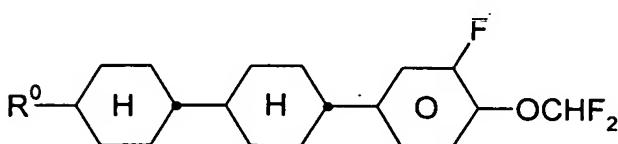


IId

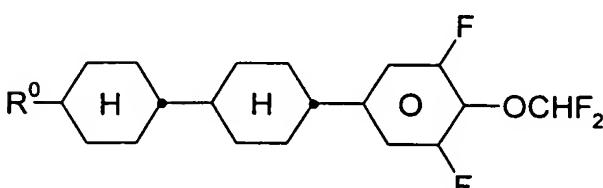
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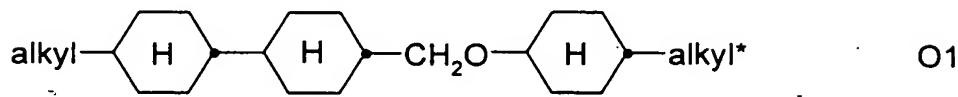
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in which  $R^0$  is as defined in Claim 6.

10. Liquid-crystalline medium according to one of Claims 1 to 9,  
characterised in that it comprises one or more compounds of the  
20 formulae O1 and O2

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in which

alkyl and alkyl\* are each, independently of one another, a straight-chain or branched alkyl group having 1-7 carbon atoms.

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11. Liquid-crystalline medium according to at least one of Claims 1 to 10, characterised in that the proportion of compounds of the formula I in the mixture as a whole is from 0.5 to 40% by weight.
- 5        12. Use of the liquid-crystalline medium according to at least one of Claims 1 to 11 for electro-optical purposes.
- 10      13. Electro-optical liquid-crystal display containing a liquid-crystalline medium according to at least one of Claims 1 to 11.

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